aggregate such markets, rather than examine each individual point-to-point market separately.[77] The predominantly local nature of demand for mobile services, and the terms under which the Commission has previously licensed SMR operators, supports aggregating these point-to-point markets on a localized basis. Furthermore, we will distinguish between urban and rural market aggregates, for reasons set forth below.

38. While many customers will be adequately served by a carrier with a localized footprint, some customers may require more wide-ranging, perhaps even nationwide, service coverage. Roaming agreements may extend a customer's access to transmission capability beyond his or her home carrier's service area, but costs escalate and functionality often diminishes because of limited interoperability across systems. Consumers who travel extensively throughout the country may therefore constitute a separate market for nationwide mobile phone service. At this time, however, we decline to examine this market separately.

39. For SMR operators, the types of services that can be economically supplied will tend to vary between urban and rural areas.[78] We agree with PCI's observation that "[t]he 800 MHz SMR industry in major metropolitan areas has traditionally been characterized by a shortage of channels. Because the FCC previously imposed loading requirements in such spectrum-short areas, metropolitan SMR providers have offered primarily dispatch service. . . . In contrast, 800 MHz SMR operators in rural areas and small to medium-sized cities . . . traditionally did not face spectrum shortages. FCC loading requirements did not apply in such non-spectrum-short areas, and, therefore, 800 MHz SMR operators in these markets were able to provide wireless services comparable to cellular service. As a result, these 800 MHz SMR operators have attracted a broad cross section of subscribers and compete more directly against cellular service providers."[79]

40. Competitive conditions in the supply of dispatch and mobile phone services also differ considerably between urban and rural areas. Most notably, rural areas tend to be less profitably served because of lower population densities relative to urban areas. Although cellular services are now relatively ubiquitous throughout the country, PCS and digital SMR providers are concentrating on deploying services initially in higher density metropolitan centers where analog cellular systems have been most heavily utilized. Service to smaller cities and rural areas is less likely to commence in the near term.[80] Hence, consumers will find the selection of mobile

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[77] *LEC In-Region Interexchange Order* at ¶¶ 5 and 66.

[78] For purposes of this proceeding, we classify urban areas based on MSAs and rural areas based on RSAs as defined by the Census Bureau. PCI also uses MSAs and RSAs to describe its service coverage. Pittencrieff Form 10-K at 2-3.

[79] *Id.* at 3-4.

[80] For example, AT&T Wireless reported that in its first phase—expected to last two to two and one-half years—it would provide coverage only in the largest cities and along major highways linking those cities. Mobile Communications Report, "AT&T Wireless picks Lucent and Ericsson for $550-million first-phase buildout" (May 20, 1996). Likewise, Geotek is "concentrating on urban regions where dispatch services are in demand." Mobile

communications service offerings to be quite different in urban versus rural settings.

41. Finally, the Commission's former rules for site licensing of SMR operators remain a major determinant of the supply of 800 MHz services in any particular market. This spectrum totals 21.5 MHz. allocated into 430 channel pairs of 25 KHz per channel. Regulations limit the power that SMR operators can use to avoid interfering with other SMRs operating on the same frequency in adjoining areas. Therefore, the potential for serving any given local market will usually be limited to those operators holding the site-specific licenses for one or more of the 430 channel pairs whose sites are situated nearest to any given market center. Hence, we define each relevant geographic market to be the service area generally covered by those SMR operators who enjoy exclusive use of their frequencies in and around each corresponding market center. These relevant geographic areas cannot be reliably defined in terms of distances around these market centers, although our definition corresponds roughly to the geographic boundaries suggested by the Applicants.[81]

f) Relevant Markets—Conclusions

42. The Commission has previously noted that convergence in the wireless marketplace could support product markets "emphasizing functionality, which would divide CMRS and related services into three categories—telephone service, dispatch, and paging."[82] Herein, we adopt this view. Accordingly, we find two relevant product markets of primary interest: two-way, interconnected mobile voice communications services, and instant, two-way dispatch communication services. While we do not yet find that integrated digital SMR service packages (comprising mobile phone and dispatch capabilities, among others) constitute a separate product market, these products do compete against carriers offering each of these constituent services on a stand alone basis.

43. We also determine that the relevant suppliers of these services are identified on the basis of their ability to provide end-to-end communications over localized areas. As a matter of primary concern, users base their choice of a vendor on its ability to serve them where they live and work. Thus, for many consumers, relatively localized coverage (perhaps with roaming capability) is sufficient. The structure of supply in these mobile communications markets also varies rather systematically between large urban centers or rural areas. Differences can be found in the number of competing communications providers, in the types of services offered, and as

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Phone News, "Despite FCC approval, few cellular carriers show interest in dispatch" (June, 9, 1997).

[81] Nextel and DOJ suggest a radius of 25 miles. *United States v. Motorola and Nextel*, 60 Fed. Reg. 19,284 at 11. Nextel Public Interest Statement (May 15, 1997) at Conf. Attachment A-2. PCI proposes a range of 30 to 50 miles, depending on terrain. Pittencrieff Form 10-K at 5.

[82] *First Annual CMRS Competition Report*, 10 FCC Rcd at 8864-65; *Second Annual CMRS Competition Report* at n.37.

discussed below, in the extent to which spectrum constitutes a potential barrier to market entry.[83]

C. Market Concentration and Entry

1. Overview of SMR Competition

44. PCI acknowledges that it faces only limited competition from most SMR operators offering service in its markets. It notes that "many of these [SMR] licensees only hold or manage five to ten channels, single site (*i.e.*, limited coverage) licenses, have limited financial resources, and are serving a small number of subscribers. There are, however, a limited number of competitors within [PCI's] markets that hold significant channel positions, provide wide-area coverage, and service a significant number of subscribers."[84] PCI expressly identifies three of these more substantial competitors—Nextel, Geotek, and Southern.[85] We observe, however, that Southern does not provide services within PCI's footprint,[86] while Geotek currently provides its services only in Dallas.[87] Hence, we conclude that competition within the region from among the larger SMR providers is largely limited to that which exists between Nextel and Pittencrieff. This assessment accords with our licensing records and with market studies prepared by industry analysts.[88]

2. Competition in Interconnected Mobile Phone Markets

45. Urban Centers. In large urban centers, we find that the market for mobile interconnected voice communications includes services provided by cellular, PCS, and digital SMR carriers. Generally, smaller SMRs using analog technologies are not effective competitors in these markets because of limited capacity, limited geographic coverage, or both. Even larger SMR providers have been unable to compete effectively in mobile phone markets in large cities when using analog technologies. "SMR operators [using analog technologies] have generally not been able to provide mobile telephone service competitive with that provided by cellular

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[83] The term "barrier to entry" is used to signify those costs of entry that would be borne by a potential market entrant which were not incurred by an incumbent.

[84] Pittencrieff Form 10-K at 7.

[85] *Id.* at 8.

[86] Nextel Conf. Attachment A-2 and A-3; PCI Conf. Attachment generally. BIA, 1997 Wireless Communications Market Report at 52 through 933.

[87] Land Mobile Radio News, "In 27-year old field, some public SMR companies just starting," (April 11, 1997). For Geotek, construction is also reportedly underway in Houston, while service to San Antonio and El Paso is expected in the near term.

[88] BIA, 1997 Wireless Communications Market Report at 52 through 933.

operators because of various factors affecting SMR capacity and quality."[89] More specifically, Nextel notes that "due to capacity constraints on its existing analog SMR systems in major metropolitan areas, Nextel has been able to offer mobile telephone service on such systems to only a limited number of its customers."[90]

46. It was anticipated at one time that digital SMR services would challenge cellular providers directly. Nextel was expected, in essence, to become a third cellular carrier.[91] However, the second large digital SMR carrier—Geotek—"has never marketed itself to the mass market for mobile telephony, or as a substitute for cellular."[92] And in mid-1995, "Nextel altered its plans considerably, such that it no longer claims to be targeting the individual cellular subscriber market. Instead, Nextel seeks to targets its sales efforts toward business work groups."[93] Hence, there are limits to the extent to which digital SMRs are currently competing with cellular/PCS providers.

47. Throughout the United States, competition from cellular companies in any given geographic market for mobile phone services is limited to two licensees. In most areas, licensees have been operational for over a decade and have extensive coverage areas. PCS services, by contrast, have been inaugurated only within the last year or so. Generally, at least one of the multiple PCS licensees in each large metropolitan area within the southwest region has begun offering service. Competition in mobile phone service from two PCS carriers currently exists in Phoenix, San Antonio, and Oklahoma City.[94] Most of the remaining A- or B-block PCS companies are expected to become operational sometime in 1997,[95] although coverage may be limited to the region's larger urban centers within the near future. Thus, it appears reasonable to conclude that competition in urban markets for mobile phone services is emerging and will intensify over the near term, regardless of the outcome of this merger.

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[89] Nextel Form 10-K at 5.

[90] *Id.* at 14.

[91] For example, see Wall Street Transcripts, "Roundtable Discussion-Cellular Communications" (Oct. 11, 1993) at 13.

[92] *Second Annual CMRS Competition Report* at 39, n.186 and 50.

[93] *Id.* at 50 and 50, n.235.

[94] Service has commenced in MTAs encompassing Dallas/Ft. Worth, Houston, San Antonio, Oklahoma City, and El Paso/Albuquerque. *Second Annual CMRS Competition Report* at Table 4. The data in Table 4 were current as of March 1997. Since publication, two PCS carriers (Sprint Spectrum and AT&T Wireless) commenced service in Phoenix, and one carrier has commenced service in Tucson and Tulsa. Arizona Republic, "Firm unveils digital plan for valley" (June 24, 1997) at E1. Arizona Daily Star, "Sprint launches digital cellular phone services" (May 7, 1997) at 1A. RCR Radio Communications Report, "Southwestern Bell launches in Tulsa" (May 26, 1997) at 15.

[95] *Second Annual CMRS Competition Report* at 20, 23.

48. Rural Areas. In rural areas and smaller cities, the market for mobile phone services generally includes only cellular and SMR providers. PCI reports that its marketing strategy in these areas has focused on providing interconnection.[96] DOJ determined that trunked SMR operators in rural areas derive as much as 60 percent of their total revenues from mobile phone service.[97] Nextel offers both dispatch and interconnection, but until recently, only 10 percent of its nationwide subscriber base was interconnected.[98] PCS companies have been licensed to provide competing services in rural areas, but are not expected to begin offering services on a widespread basis for some time.[99] Similarly, providers of digital SMR technologies (*e.g.*, Nextel and Geotek) do not expect to offer interconnected mobile phone services to rural areas within the near future.[100]

3. Competition in Dispatch Markets

49. Urban Centers. In large urban centers, the commercial markets for two-way dispatch services include conventional SMR and digital SMR carriers operating primarily at 800 MHz, but also at 900 MHz, and 220 MHz. In all, 28.5 MHz of spectrum is available on these frequencies. As noted previously, Nextel offers primarily dispatch services on its urban analog SMR systems.[101] PCI also emphasizes dispatch in urban areas, notwithstanding its general marketing strategy emphasizing mobile phone service.[102] Geotek is currently providing dispatch-related services in Dallas on 900 MHz bands, with additional facilities under construction in Houston, San Antonio, and El Paso.[103] Other companies are planning to offer voice dispatch services on these frequencies, although the record does not indicate whether these services have

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[96] Pittencrieff Form 10-K at 4.

[97] *United States v. Motorola and Nextel*, 60 Fed. Reg. 19,284 at n.25.

[98] RCR Radio Communications Report, "Top 20 SMRs," (Feb. 13, 1996) at 8.

[99] *See infra* at ¶ 40 and n. 80.

[100] Geotek's buildout plans remain focused around major urban markets. *Second Annual CMRS Competition Report* at 41; Mobile Phone News, "Despite FCC approval, few cellular carriers show interest in dispatch" (June, 9, 1997). Nextel's plans are to expand coverage from 200 to 300 cities by yearend. Kansas City Star, "Two firms join KC's wireless phone market" (June 3, 1997) at D2.

[101] As of February 1996, only about 10 percent of its analog subscriber base nationwide were interconnected. RCR Radio Communications Report "Top 20 SMRs" (Feb. 13, 1996). Nextel has indicated that this figure would have been higher in rural areas, and lower in urban areas.

[102] PCI expressly notes that it "has sufficient channel capacity to offer mobile phone service in most of its markets, except for new markets in major metropolitan areas where fleet dispatch is still emphasized." Pittencrieff Form 10-K at 4.

[103] Land Mobile Radio News, "In 27-year old field, some public SMR companies just starting," (April 11, 1997).

commenced.[104] Dispatch services at 220 MHz have been slow to develop because of litigation delays and limited consumer acceptance due in part to relatively higher equipment costs.[105] Cellular and PCS carriers have been authorized to provide dispatch services since 1995, but to date none have launched competing services.[106]

50. Rural Areas. In rural areas and smaller cities, the commercial markets for two-way dispatch service presently include only SMR carriers. Cellular and PCS carriers are authorized to provide dispatch services, but to date none have done so. Similarly, providers employing digital SMR technologies are not expected to offer such services on a widespread basis outside of major metropolitan areas in the near future. While the Commission has recently licensed additional spectrum on 220 MHz and 900 MHz bands suitable for offering dispatch services, it is not presently clear when these services will become available on a significant scale.

4. Market Entry Prospects

51. The federal regulatory environment facing potential mobile communications carriers has changed rather dramatically in recent years. In particular, the manner and terms on which the Commission now licenses wireless spectrum have been altered. Spectrum is being licensed in more suitably sized geographic parcels, auctions have accelerated the pace of licensing, and new policies afford license holders increasingly greater flexibility to use this spectrum in a manner that best meets society's needs. Small businesses have also been afforded special opportunities to acquire spectrum. This new climate has considerably enhanced prospects for entry into wireless communications generally.

52. The Commission is currently implementing policies that should greatly improve opportunities for entry into markets where this merger raises competitive concerns—rural markets generally, and urban dispatch markets. In May 1996, the Commission licensed additional 900 MHz spectrum on a much broader geographic basis than the 50 metropolitan areas initially licensed in 1986. In our licensing of C-block PCS spectrum, licenses were auctioned using basic trading areas, which are relatively small geographic parcels. On July 10, 1997, the Commission released its second 800 MHz report,[107] which among other things, clears the way for the

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[104] Land Mobile Radio News, "Motorola still on track with 900 MHz iDEN development" (April 4, 1997).

[105] Land Mobile Radio News, "Snapshot: 220 MHz service provider rollout plans" (May 10, 1996). RCR Radio Communications Report, "US MobilComm rolls out 220 MHz SMR service in D.C. market" (Dec. 9, 1996) at 22. PR Newswire, "American Digital Communications sells worldwide Midland product distribution rights for Intek common stock," (July 20, 1997) at 09:21:00.

[106] *See* 47 C.F.R. § 22.577; *see also* Eligibility for the Specialized Mobile Radio Services and Radio Services in the 220-222 MHz Land Mobile Band and Use of Radio Dispatch Communications, *Report and Order*, FCC 95-98, 10 FCC Rcd 6280, 6297 (1995), ¶ 29 ("*Cellular/PCS Dispatch Order*").

[107] *See* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR systems in the 800 MHz Frequency Band, PR Docket 93-144, *Second Report and Order*, FCC 97-223 (rel. July 10, 1997).

auctioning on a wide-area basis of spectrum frozen since 1994. Our forthcoming auction of 220 MHz spectrum is expected to revive activity in dispatch services in particular. SMR spectrum at 220-222 MHz is licensed primarily to parties intending to offer dispatch services, although assorted obstacles have limited growth of this service to date.[108] The Commission has also adopted rules that allow certain wireless carriers to assign portions of their spectrum blocks and/or geographic service areas to other qualified entities, and proposals exist to extend this freedom to other CMRS carriers.[109] A number of partitioning agreements have already been reached by PCS carriers, and others are under negotiation. This flexibility is expected to promote service beyond core markets.

53. Most notable, however, has been the absence to date of entry by cellular and/or PCS providers into the markets for dispatch services. One research group concludes that "it seems unlikely that SMR operators will face any meaningful competition for dispatch and group communications service from cellular or PCS companies."[110] This group explains that cellular and PCS networks have been optimized to provide and bill for telephone-like service, and that dispatch would be an uneconomical use of these network's airtime, at least in major metropolitan areas, when compared with alternative uses. Indeed, according to this view, cellular carriers would have to retrofit their networks, and the feasibility of overcoming technical obstacles to provide dispatch capability is uncertain.[111] Nextel disagrees, contending that entry is not constrained by any serious technological limitations,[112] but has been limited by the absence of indications of adequate demand. Nextel suggests that its own success in the dispatch arena may be needed before serious interest in this market is taken by potential competitors.[113] One large manufacturer of wireless communications equipment recently announced that by the spring of 1999 it will offer software, handsets, and other equipment that carriers using CDMA networks need to offer voice dispatch services over cellular and PCS networks.[114] Bell Atlantic NYNEX

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[108] Nextel Public Interest Statement (May 15, 1997) at 11.

[109] *See* Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees and Implementation of Section 257 of the Communications Act, Elimination of Market Entry Barriers, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21,831 (1996).

[110] BIA, 1997 Wireless Communications Market Report at 26.

[111] *Id.*

[112] Comcast Cellular recently introduced a group dispatch service on a trial basis over their cellular network. The service operates by restricting each user's field of inbound and outbound calls. Wireless Messaging Report, "Items of Interest" (Oct. 8, 1996). A transcript of Comcast Cellular's press release was furnished by Nextel in its Nextel Public Interest Statement (May 15, 1997) at Conf. Attachment A-125.

[113] Nextel Public Interest Statement (March 11, 1997) at 11.

[114] Land Mobile Radio News, "Digital cellular, PCS carriers get chance to offer dispatch" (May 30, 1997). Qualcomm expects handsets featuring this capability to be priced initially in the range of $3000 per unit. CDMA refers to Code Division Multiple Access, a transmission protocol that allows multiple users to share a single radio

Mobile is presently testing this system but has not decided whether to proceed with a commercial trial.[115]

54. We believe that entry into dispatch services is not inherently costly, technically challenging, or unduly time-consuming. The architecture of dispatch systems is based on deploying a limited number of towers and the use of high-powered signals. Hence, dispatch services do not involve the costly and time-consuming process of installing multi-cell systems such as those employed by cellular and PCS vendors. In addition, there are no regulatory barriers preventing any spectrum holders from entering this market. While carriers may currently find it more profitable to devote their spectrum to uses other than voice dispatch, substantial growth in mobile communications service capacity, especially in urban centers, is likely to change the relative profitability of these other services and create incentives for carriers to allocate more spectrum to the provision of dispatch-type services.[116]

D. Competitive Effects of Merger

55. Having established above the conditions of existing and potential competition in these markets, we turn our focus to the likely effects of the Nextel-Pittencrieff merger on competition in the relevant markets.

1. Interconnected Mobile Phone Services

56. Urban Centers. Independent of whether this merger proceeds as proposed, prospects for competition in many large metropolitan areas appear adequate to promote competitive pricing for interconnected mobile phone services. The proposed merger would result in PCI's withdrawal from these markets, to the extent that PCI is currently present to any meaningful degree,[117] as an independent provider of mobile phone services. However, PCI's spectrum would remain in service and would ultimately be used to deliver a variety of mobile communications services, including interconnected mobile phone service, as Nextel implements its digital system upgrades.

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channel by assigning a unique code to each user's transmissions.

[115] Mobile Phone News, "Despite FCC approval, few cellular carriers show interest in dispatch" (June 9, 1997). MPN reports that of the 18 cellular companies it contacted, none currently provide traditional group dispatch. Three of these companies (CommNet Cellular, SNET Mobility, and Kansas Cellular) provide services that resemble one-to-one dispatch. Ameritech Cellular, Atlantic Cellular, BellSouth Cellular, Cellulink Wireless Services, Century Cellunet, GTE Wireless, Southwestern Bell Wireless, United States Cellular and Vanguard reportedly have no immediate plans to provide dispatch services. The others also have no immediate plans to provide dispatch services, but are investigating the possibility of offering dispatch services in the future.

[116] Jared Sandberg, Wall Street Journal, "The Squeeze," (September 11, 1997) at R22.

[117] *See, infra* at ¶¶ 39, 45.

57. Even in cities where PCI's present holdings of 800 MHz spectrum are considerable,[118] the impact of PCI's departure on concentration in urban mobile phone markets is unlikely to be competitively significant. PCI is not an active competitor in these markets, but instead offers its urban customers primarily dispatch services.[119] Moreover, within the immediate future, if not already, consumers in the region's largest cities will be able to choose from among at least r mobile phone competitors (excluding SMR providers) with 110 MHz of total spectrum.[120] By comparison, in the largest metropolitan centers PCI holds 800 MHz licenses with total core spectrum not exceeding 12.5 MHz.[121] While concentration in these markets may increase slightly as a consequence of PCI's withdrawal, this would be more than adequately remedied by Nextel's conversion of PCI's urban analog systems (largely dispatch-only), which will enable Nextel's large-scale entry or expansion into urban interconnected mobile phone markets.[122]

58. While Nextel promises to offer greater rivalry to the region's cellular and PCS companies, its SMR service will appeal primarily to business users who are more inclined to demand a versatile multi-service package. The merger would confer Nextel with 9 to 17 MHz of 800 MHz spectrum in the region's largest cities. (See Appendix A.) However, these interests would still remain well below the spectrum holdings of individual cellular and PCS providers, who control at least 25 or 30 MHz, respectively. Hence, Nextel's ability to market its services aggressively to the broader consumer segments of the market may ultimately hinge on either its ability to acquire additional spectrum or to achieve still greater spectrum efficiency.

59. Rural Areas. The principal benefits from this merger—those related to the introduction of digital SMR service—would not likely accrue to consumers outside of large metropolitan areas within PCI's footprint for some time to come. Consequently, the effects of this merger for rural customers will depend on the extent to which competition for mobile phone service will diminish in rural markets. PCI's business strategy has been focused on providing mobile phone services in rural areas. Nextel also offers mobile voice services, but only about 10 percent of its subscribers served via the analog systems (which are prevalent in rural areas)

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[118] We refer here to San Antonio and Austin among the region's eight largest urban centers.

[119] *See infra* ¶ 39.

[120] In some regions of the United States, broadband PCS providers licensed on the C-D-E-F bands may also be offering service within the near future.

[121] Within the 800 MHz SMR band, PCI holds approximately 12.5 MHz of spectrum in San Antonio, 9 MHz in Austin, and fewer than 5 MHz in the other large cities within the region. FCC, Wireless Tel. Bur., Commercial Wireless Division, Licensing Branch.

[122] In some localities, Nextel's digital services may already be in place, and the addition of PCI's spectrum would merely bring more capacity onto these markets.

are interconnected.[123] Hence, competition in these markets would diminish only to the limited extent to which these companies provide overlapping service. Cellular companies, who are well established throughout the region, are also well positioned to offer dispatch services in these regions should prices increase. Hence, this merger is unlikely to result in Nextel being able to exercise any unilateral market power as a result of the merger.

2. Dispatch Services

60. Urban Centers. The impact of this merger will most directly affect dispatch customers in the major metropolitan areas, where demand for mobile services relative to capacity is highest. PCI and, until recently Nextel, have emphasized the provision of dispatch service in these urban areas. As Nextel rolls out its digital SMR system, and in particular as demand for its digital services grows, Nextel has curtailed its analog dispatch service on 800 MHz.[124] Furthermore, Nextel markets its new digital services as a cellular-like product, and its customers are increasingly electing to use this capacity for interconnected mobile phone services.[125] Nextel would also acquire significant holdings of spectrum in the 900 MHz band that PCI controls.

61. As a result of the merger, Nextel would directly control roughly 45 to 68 percent of the 28.5 MHz of spectrum presently being used, or imminently planned for use, in offering dispatch services,[126] according to our review of licensing records for eight major metropolitan cities in the region.[127] We investigated SMR spectrum holdings in Albuquerque, Austin, Dallas, Houston, Oklahoma City, Phoenix, San Antonio, and Tulsa—all cities whose BTA populations exceeded 1 million as of 1996. In two of the eight urban markets we examined, Nextel would control 75 percent or more of the 800 MHz SMR spectrum and 40 percent or more of the 900 MHz SMR spectrum. In addition, Nextel operates a large number of 800 MHz channels that it manages on behalf of third-party licensees.[128]

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[123] *See infra* ¶ 48.

[124] Nextel Form 10-K at 6.

[125] RCR reports that between 1996 and 1997, Nextel's share of total mobile units that are interconnected to the PSTN increased from 10 percent to 27 percent. RCR Radio Communications Report, "Top 20 SMRs" (Feb. 13, 1996) at 8, and (Feb. 10, 1997) at 14.

[126] Based on the *Guidelines* and on current accounts of the business plans of major cellular and PCS providers, we exclude cellular and PCS spectrum from dispatch market capacity. *See infra* at ¶ 14 and fn 115.

[127] See Appendix A. The total of 28.5 MHz includes 21.5 MHz allocated within the 800 MHz band, 5 MHz within the 900 MHz band, and 2 MHz in the 220 MHz band. We excluded Tucson from our analysis because of complex licensing issues arising out of its proximity to the Mexican border.

[128] Nextel Form 10-K at 15. Nextel reports that of the 800 MHz channels it operates nationwide, 24.3 percent are managed on behalf of third-party licensees. These licenses are managed under long-term agreements (for 15 or 30 years) and often provide Nextel with an option to acquire these licenses. *Ibid.* DOJ observes that, "[W]hile the FCC requires that management agreements technically leave control of the operations in the hands of the licensee,

62. Clearly, this merger will result in an increase in the concentration of spectrum within the SMR bands. However, there are no regulatory barriers preventing potential dispatch service providers from offering services using other bands. The Commission lifted restrictions in 1995 that prevented cellular and PCS companies from offering dispatch services.[129] More recently, the Commission has implemented policies designed to allow CMRS license holders the freedom to use their spectrum more flexibly.[130] Furthermore, Nextel will accelerate the conversion of PCI's analog networks to digital systems, with its attendant beneficial increases in system capacity. Indeed, Nextel's digital systems will continue to provide dispatch capability along with its mobile phone services and other mobile communication features. Thus, to the extent that Nextel's digital systems are used increasingly to provide mobile phone services rather than dispatch services, this process is the result of decisions by consumers to purchase one service over the other. The diversion of this capacity to alternative uses is consistent with the Commission's policies to promote more efficient allocation of spectrum based on market-driven mechanisms. As a general matter, we wish to encourage the adoption of innovative technologies and marketing strategies rather than inhibit such innovation.

63. Rural Areas. The net effects of this merger for rural dispatch customers will depend on whether competition for these services will diminish appreciably. While PCI's business strategy has focused on providing mobile phone services, Nextel offers primarily dispatch services throughout its analog service areas. Hence, competition in the commercial dispatch business would diminish as a result of the merger, but not substantially due to the apparently limited degree of service overlap. Rural areas do not face the conditions of congested spectrum experienced by urban users, and the construction of private SMR systems appears to be more of a viable option for these users. These alternatives are likely to discipline anticompetitive pricing in these markets.

E. Pro-Competitive and Efficiency Benefits

64. Nextel and PCI propose to merge their operations and combined spectrum to provide wide-area digital SMR services. Through this and its previous acquisitions, Nextel proclaims that it is "transforming a string of formerly overcrowded, spectrally-inefficient SMR systems into a state-of-the-art digital mobile network with the capacity and functionality necessary to address the needs of the modern mobile workforce."[131] Nextel has also previously claimed that its digital SMR services will foster increased competition in the markets for mobile

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managing companies generally have effective control of the channels they manage." *United States v. Motorola and Nextel*, 60 Fed. Reg. 19,284 at p. 10.

[129] *Cellular/PCS Dispatch Order* at ¶ 29.

[130] Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, *First Report and Order and Further Notice of Proposed Rule Making*, 11 FCC Rcd 8965 (1996).

[131] Nextel Public Interest Statement (May 15, 1997) at 5.

phone services.[132] In broad terms, then, we examine three major alleged pro-competitive or efficiency benefits posited in support of the merger: increased spectrum efficiency, the introduction of innovative digital SMR services, and increased competition for existing telecommunication service carriers.

1. Increased Spectrum Efficiency

65. Nextel claims that its acquisition of PCI will enable it to introduce more spectrally efficient digital technology in PCI's footprint. In this proceeding, Nextel refers to the Commission's previous assessments that a "critical mass" of spectrum is needed to support the necessary investment in digital technologies.[133] Nextel previously indicated that it needed the spectrum it acquired in the OneComm and Dial Page markets to construct its digital system.[134] Nextel also argues that "the infrastructure required to implement wide-area SMR services requires additional SMR spectrum consolidation in these markets."[135] Nextel originally envisioned that its digital mobile service would offer a fifteen-fold increase in spectral efficiency relative to its analog systems.[136] However, consumers did not react favorably to the quality of the voice transmissions in the mobile phone service mode under its first-generation digital technology.[137] Motorola has since reconfigured its iDEN system designed for Nextel, which now provides a three-fold increase in spectrum efficiency for mobile phone service, and a six-fold increase in direct connect (*i.e.*, dispatch) mode.[138] While this technology does not generate the spectrum efficiencies originally anticipated, we conclude that the introduction of these digital systems constitutes a clear public interest benefit. Most notably, digital systems increase system capacity and spectrum reuse potential. Both effects would put downward pressures on consumer prices in a competitive market. PCI also had plans to implement its own digital system prior to its agreement to merge with Nextel.[139] However, these plans do not appear to have progressed very far beyond the initial planning and license application stages. Thus, at the very least, it appears

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[132] *Motorola*, 10 FCC Rcd 7783, n.40, citing *CIS* at 12.

[133] Nextel Public Interest Statement (May 15, 1997) at 5 citing, *CMRS Third Report and Order*, 9 FCC Rcd 7988 (1994).

[134] Nextel Public Interest Statement (May 15, 1997) at Conf. Attachment A-65.

[135] *Id.* at 9.

[136] *OneComm*, 10 FCC Rcd at 3362; *Motorola*, 10 FCC Rcd at 7783.

[137] Donaldson, Lufkin & Jenrette, The Wireless Communications Industry (Spring 1997) at 41.

[138] Nextel's application of Motorola's Integrated Dispatch Enhanced Network (iDEN©) technology uses a Time Division Multiple Access (TDMA) transmission protocol that, when operated in interconnect mode, divides a single radio channel into three time slots and thereby allows three conversations to occur simultaneously.

[139] Pittencrieff Form 10-K at 1, 12-13. RCR Radio Communications, "Nextel pursues Pittencrieff purchase" (Oct. 7, 1996).

that this merger will accelerate the timetable for digital conversion of PCI's analog spectrum.

66. We also note that this merger would continue the process encouraged by the Bureau in previous SMR merger decisions that has consolidated the fragmented distribution of 800 MHz licenses. More efficient use of this spectrum, now and in the future, will be facilitated by this merger because it will reassemble contiguous spectrum now scattered among multiple users. At present, this will allow Nextel's existing spectrum and that which it acquires from PCI to be employed in more efficient, digital, wide-area systems. In the future, this consolidation will also increase the ability to reallocate this spectrum efficiently in response to market incentives. These efficiency benefits can be ascribed to Nextel's acquisition of spectrum throughout the region, including markets where Nextel has already deployed digital technologies.

2. Introduction of Digital SMR Service

67. Nextel is constructing a near-nationwide digital mobile communications network that will offer a wider range of features, better security, and improved transmission quality relative to existing cellular products. These services will be available on an integrated handset, with unified billing and customer support.[140] Nextel also asserts that the merger is needed to extend digital coverage to its existing customers.[141] Nextel further claims that, with its digital SMR services, it "has bridged the gap between traditional dispatch radio service and advanced mobile telephony, thereby offering meaningful competition to firms at both ends of the service and functionality continuum."[142]

68. While we recognize the value to society and to consumers represented by the introduction of this integrated package of mobile communications SMR services, Nextel's claims that it needs PCI's spectrum to launch its digital services or offer roaming capability to its existing digital subscribers are dubious. Nextel has already launched full-scale digital service in four cities within the region.[143] However, we agree that Nextel's acquisition of PCI's spectrum in these communities will enable Nextel to realize cost economies in its multi-cellular architecture. Nextel has also constructed digital facilities in over 200 cities throughout the country by recovering some analog spectrum to allow its nationwide digital customers to "roam" with full functionality.[144] Hence, the merger does not appear to be necessary to extend services

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[140] Nextel Public Interest Statement (March 11, 1997) at 3.

[141] *Id.* at 2.

[142] *Id.* at 5.

[143] Nextel has introduced its digital service to local-area customers in Dallas-Ft. Worth, Houston, Oklahoma City, and Tulsa. RCR Radio Communications Report, "Nextel turns on ESMR service in Dallas" (June 9, 1997) at 18. Nextel reportedly expects to launch full service in San Antonio and Austin within the near future. Dallas Morning News, "Nextel starts new service" (June 4, 1997) at 13D.

[144] Nextel Form 10-K at 6.

to Nextel's roaming digital customers based outside the region. Nevertheless, Nextel's marketing strategy, and its credibility as a competitive rival to PCS and cellular companies, revolve around being the first company to integrate dispatch capability into a mobile communications device, and to offer this service on a near-nationwide basis. Nextel will need the spectrum currently held by PCI to offer its digital services to consumers residing in Albuquerque, Austin, and San Antonio. Nextel's ability to offer nationwide service is dependent upon its ability to launch digital services throughout all of the major metropolitan markets in the country. Nextel's acquisition of PCI's holdings would also serve to expand its capacity or extend its geographic range of service within the region's other metropolitan areas where it has already been able to launch its digital services.

3. Increased Competition for Cellular/PCS

69. At one time, Nextel proclaimed that it was positioning itself to become the third cellular carrier (prior to the advent of PCS), but with a national footprint.[145] In mid-1995, however, "Nextel altered its plans considerably, such that it no longer claim[ed] to be targeting the individual cellular subscriber market. Instead, Nextel seeks to target its sales efforts toward business work groups."[146]

70. As a result of this marketing reorientation, the Commission subsequently determined that "wide-area SMR should be considered competitive with cellular, but only in terms of the business market, particularly high-volume mobile communications users."[147] Nevertheless, one securities firm has noted that recent advertising and pricing initiatives suggest that Nextel may be returning its attention to the non-business markets.[148] Nextel's digital rollouts have been accompanied by marketing campaigns emphasizing the absence of roaming charges and measuring airtime in per-second rather than one-minute increments.[149] Nextel's focus on these attributes of its service take aim at a broader cellular market. Existing cellular and PCS users would benefit considerably if these current competitive distinctions were to be copied,[150]

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[145] Seattle Times, "Nextel hopes to take lead in wireless competition" (Nov. 10, 1993) at D6. Los Angeles Times, "Nextel to begin statewide service" (Sept. 22, 1994) at B1.

[146] *Second Annual CMRS Competition Report* at 50 and n.235.

[147] *Id.* at 51.

[148] Donaldson, Lufkin & Jenrette, The Wireless Communications Industry (Spring 1997) at 42.

[149] Land Mobile Radio News, "In 27-year-old field, some public SMR companies just starting" (April 11, 1997).

[150] There is evidence that this may have already begun to occur. PCS companies are expanding their local-rate calling areas, citing competitive pressures from Nextel. According to one wireless market analyst, Nextel's introduction earlier this year of nationwide home-area rates for its services constituted a "shot across the bow that has prompted PCS to follow suit." Wireless Week, "Carriers expand home calling areas" (August 11, 1997) at 22.

More recently, Sprint PCS became the first nationwide PCS carrier to offer a rate plan that eliminates home-calling area distinctions altogether and instead applies a single rate to all domestic calls. Communications Daily

just as the innovative marketing that accompanied the introduction of PCS[151] motivated cellular companies to react.

71. The Commission has previously determined that "[l]imiting the aggregation of 800 MHz spectrum could handicap . . . potential competitors to broadband PCS and cellular providers with equal or larger spectrum holdings."[152] Individual cellular providers, it should be noted, hold 25 MHz of spectrum, while A-, B- and C-block PCS providers have been awarded licenses for 30 MHz. Nextel's strategy of marketing initially to high-volume business users but eventually to a broader market is premised on its ability to aggregate spectrum within the smaller SMR band. We believe the aggregation that would occur as a result of this merger is consistent with the Commission's policy goals for the 800 MHz SMR band and increases the likelihood that Nextel will provide competition to cellular and PCS carriers in the relevant geographic markets and nationwide.

VI. CONCLUSIONS

72. Nextel and PCI both currently provide dispatch and mobile phone services, among others, throughout PCI's service area. Hence, this merger has some potential to affect consumers of dispatch and mobile phone services in this region by reducing competition. While we find that the merger would result in reduced competition in several relevant markets, many more consumers would benefit directly as digital system upgrades are accelerated and provide increased capacity and expanded services. Other consumers may benefit indirectly from the competitive pressures that Nextel's digital service package appears likely to impose on the region's cellular and PCS carriers. In our efforts to weigh these factors, we take note that nationwide there are roughly twenty times the number of cellular/PCS subscribers relative to commercial SMR units in operation.[153]

A. Impact in Rural Markets

73. In rural areas within the region, we conclude that this merger would result in some small level of diminished competition among providers of dispatch and mobile phone services. Nextel and PCI both offer interconnected mobile phone and dispatch services. However, in these rural areas, PCI has focused primarily on providing interconnection, while Nextel has provided

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(September 16, 1997).

[151] For example, certain PCS companies are not charging for the first minute of an incoming call, and have eliminated service contracts.

[152] *See* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking*, 11 FCC Rcd 1463, 1494 (1995).

[153] *Second Annual CMRS Competition Report* at 36 and Table 1.

principally dispatch services. Hence, the limited degree to which these firms compete head-on attenuates our anticompetitive concerns. Moreover, the abundance of radio spectrum relative to demand in these outlying rural areas appears to afford existing providers and potential entrants with ample opportunities to provide these services, should economic incentives to do so become attractive. We are unaware of technical or regulatory barriers that would otherwise constitute a significant barrier to entry facing potential providers of these services.

B. Impact in Urban Markets

74. In urban centers, the impact of this merger on competition is more complex. This merger will increase the concentration in urban markets for dispatch services, where competition is currently quite limited. In many instances, this merger would remove Nextel's largest existing dispatch competitor in the 800 MHz band. Moreover, Nextel would also acquire licenses controlled by PCI in the 900 MHz band, a major alternative vehicle for entry into these markets. As a direct consequence, Nextel would likely achieve or strengthen its dominant position in the urban markets for dispatch services within this region. However, the introduction and expansion of digital systems will afford dispatch consumers now served by Nextel and PCI with access to more capacity, a broader range of features, better security, and improved transmission quality. In particular, Nextel's conversion of PCI's spectrum not only will not divert dispatch capacity, but it will expand total transmission capacity and allow consumers to choose which services they wish to receive. On balance, we find that the benefits to urban users of mobile phone and business communications services outweigh the potential adverse effects of removing a significant competitor from urban dispatch markets. Until recently, Nextel has targeted high-volume business users with its business oriented services. The additional spectrum that Nextel is acquiring through this and its other acquisitions should provide it with incentives to expand its marketing efforts, thereby extending these benefits to additional users.

75. For users of interconnected mobile phone services, this merger will also likely contribute to the competition now developing in these markets. Neither firm is currently able to offer interconnected phone service to any significant extent on their existing analog systems because of high subscriber loads, difficulties adding capacity, and system priorities afforded to dispatch users. This merger will facilitate the upgrade of PCI's existing urban analog systems to digital, thereby allowing this spectrum to be used more efficiently. It will also permit the introduction of—or expanded capacity for—new service packages, which among other attributes, provide more reliable access to the public switched telephone network.

76. Nextel and PCI are both profit-driven enterprises inclined to tailor their offerings to those customers who will place the highest value on (*i.e.*, pay the most for) their services. The fact that they propose, in effect, to devote PCI's spectrum to the expansion of Nextel's digital service in lieu of emphasizing traditional dispatch leads us to conclude that more consumers want, and are evidently willing to pay for, such digital service rather than traditional dispatch. We do not wish to frustrate the evident message that the marketplace has transmitted by obstructing the conversion of PCI's spectrum to digital services. Our general policy is to devote spectrum to its most highly-valued use. This is what Nextel proposes to do. If this has the effect

of reducing the supply of traditional dispatch services, then these services constitute an less efficient use of this spectrum compared with digital mobile communications services. We will not preserve markets for their own sake, without regard to considerations in other markets and overall economic efficiency. Therefore, we find that the reduction of competition in the traditional dispatch market is outweighed by the pro-competitive effects in the digital mobile communications markets and the overall goal of achieving greater economic efficiency that competition promotes.

77. We conclude that the benefits that will accrue to urban, interconnected mobile phone users, together with the enhanced capacity, capabilities, and transmission quality of services available to urban dispatch-oriented customers, outweigh the possible harms that may result from diminished competition in these relevant markets generally. In particular, we note that in urban dispatch markets, where our competitive concerns may be the greatest, this merger will effectively facilitate an increase in transmission capacity. Indeed, this merger offers no likely prospect for mobile communications capacity being withdrawn anywhere within the affected region. This conclusion generally addresses the prospect raised on antitrust principles that is of utmost concern, namely that the merged entity will restrict supply and thereby raise prices.

V. ORDERING CLAUSES

78. Accordingly, having reviewed the applications and the record in this matter, IT IS ORDERED, pursuant to Section 4(i) and (j), 309, and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 309, 310(d), that the applications filed by Pittencrieff Communications, Inc. and Nextel Communications, Inc. in the above-referenced proceedings ARE HEREBY GRANTED.[154]

79. IT IS FURTHER ORDERED that the above grant shall include authority for Nextel to acquire control of:

a) any authorization issued to Pittencrieff's subsidiaries and affiliates during the Commission's consideration of the transfer of control applications and the period required for consummation of the transaction following approval;

b) construction permits held by licensees involved in this transfer that mature into licenses after closing and that may have been omitted from the transfer of control applications; and

[154] We note that one of the stations subject to transfer as a result of this merger, Station WNSS422, may be affected by a pending Bureau proceeding initiated by the County of Denton, Texas (the Denton proceeding), to reinstate its authorization for former station WNJJ690 at a nearby site. Our approval of the transfer of Station WNSS422 is expressly subject to and conditioned upon the outcome of the Denton proceeding. Accordingly this Order and our decision here does not address the issues raised in that proceeding.

c) applications that will have been filed by such licensees and that are pending at the time of consummation of the proposed transfer of control.[155]

80. IT IS FURTHER ORDERED that the Report and Order SHALL BE EFFECTIVE upon release in accordance with 47 C.F.R. § 1.103.

FEDERAL COMMUNICATIONS COMMISSION
WIRELESS TELECOMMUNICATIONS BUREAU

Daniel Phythyon /RLG
Daniel Phythyon
Bureau Chief

[155] *McCaw*, 9 FCC Rcd at 5909, n.300.

Appendix A: Distribution of Control over SMR Channels by Market

Large Urban Markets		220 MHz *	800 MHz †					900 MHz ‡					Total	Nextel Pre-Mergers	Nextel Post-Mergers
		Total	Nextel*	PCI	Subtotal	Others	Total	Nextel	PCI	Subtotal	Others	Total	220+800+900	220+800+900	220+800+900
Albuquerque	*Channels*		111	96	207	446	653	30	70	100	100	200			
	Megahertz	2.00	5.55	4.80	10.35	11.15	16.33	0.75	1.75	2.50	2.50	5.00	28.50	6.30	12.85
	Share	7.0%	9.7%	8.4%	18.2%	39.1%	57.3%	2.6%	6.1%	8.8%	8.8%	17.5%	100.0%	22.1%	45.1%
Austin	*Channels*		77	182	259	342	601	20	0	20	180	200			
	Megahertz	2.00	3.85	9.10	12.95	8.55	15.03	0.50	0.00	0.50	4.50	5.00	28.50	4.35	13.45
	Share	7.0%	6.8%	16.0%	22.7%	30.0%	52.7%	1.8%	0.0%	1.8%	15.8%	17.5%	100.0%	15.3%	47.2%
Dallas-Ft. Worth	*Channels*		270	64	334	192	526	30	0	30	170	200			
	Megahertz	2.00	13.50	3.20	16.70	4.80	13.15	0.75	0.00	0.75	4.25	5.00	28.50	14.25	17.45
	Share	7.0%	23.7%	5.6%	29.3%	16.8%	46.1%	2.6%	0.0%	2.6%	14.9%	17.5%	100.0%	50.0%	61.2%
Houston	*Channels*		273	80	353	154	507	30	0	30	170	200			
	Megahertz	2.00	13.65	4.00	17.65	3.85	12.68	0.75	0.00	0.75	4.25	5.00	28.50	14.40	18.40
	Share	7.0%	23.9%	7.0%	31.0%	13.5%	44.5%	2.6%	0.0%	2.6%	14.9%	17.5%	100.0%	50.5%	64.6%
Oklahoma City	*Channels*		294	56	350	160	510	40	40	80	120	200			
	Megahertz	2.00	14.70	2.80	17.50	4.00	12.75	1.00	1.00	2.00	3.00	5.00	28.50	15.70	19.50
	Share	7.0%	25.8%	4.9%	30.7%	14.0%	44.7%	3.5%	3.5%	7.0%	10.5%	17.5%	100.0%	55.1%	68.4%
Phoenix	*Channels*		227	66	293	274	567	10	20	30	170	200			
	Megahertz	2.00	11.35	3.30	14.65	6.85	14.18	0.25	0.50	0.75	4.25	5.00	28.50	11.60	15.60
	Share	7.0%	19.9%	5.8%	25.7%	24.0%	49.7%	0.9%	1.8%	2.6%	14.9%	17.5%	100.0%	40.7%	54.8%
San Antonio	*Channels*		86	248	334	192	526	20	0	20	180	200			
	Megahertz	2.00	4.30	12.40	16.70	4.80	13.15	0.50	0.00	0.50	4.50	5.00	28.50	4.80	17.20
	Share	7.0%	7.5%	21.8%	29.3%	16.8%	46.1%	1.8%	0.0%	1.8%	15.8%	17.5%	100.0%	16.8%	60.4%
Tulsa	*Channels*		265	56	321	218	539	50	50	100	100	200			
	Megahertz	2.00	13.25	2.80	16.05	5.45	13.40	1.25	1.25	2.50	2.50	5.00	28.50	14.50	18.55
	Share	7.0%	23.2%	4.9%	28.2%	19.1%	47.3%	4.4%	4.4%	8.8%	8.8%	17.5%	100.0%	50.9%	65.1%

Sources: FCC, WTB, Licensing Branch

Notes:
* Neither Nextel nor PCI is currently licensed on the 220 MHz band.
† 800 MHz holdings are overstated because of the shared use of a limited number of channels.
‡ 900 MHz holdings are overstated because of non-exclusive rights to some channels due to the presence of incumbent licensees.
Nextel's 800 MHz holdings include recent transfers of licenses from SRI, Inc.

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Before the
FEDERAL COMMUNICATIONS COMMISSION FCC 93-451
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's	)	GEN Docket No. 90-314
Rules to Establish New Personal	)	
Communications Services	)	RM-7140, RM-7175, RM-7618

SECOND REPORT AND ORDER

Adopted: September 23, 1993; Released: October 22, 1993

By the Commission: Commissioner Barrett dissenting and issuing a statement; Commissioner Duggan issuing a statement.

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110. We will review carefully any such instances in order to determine whether our intent to limit participation by cellular licensees in PCS service areas that overlap their cellular service area is being evaded or abused. Parties are on notice that we intend to reconsider this limit if we conclude that our intent to ensure competition between cellular and PCS could be undermined under the ownership rules we adopt today.

111. In the Notice we solicited comments on revising the cellular service rules to state explicitly that cellular licensees may provide PCS-type services without prior notification, such as wireless PBX, data transmission and telepoint service. We also sought comment on whether cellular carriers should remain bound to provide analog service compatible with the requirements of OST Bulletin No. 53. Commenters generally support rules to explicitly permit provision of new services without prior notification. Accordingly, we are revising the cellular service rules to state explicitly that cellular licensees may provide any PCS-type services, including wireless PBX, data transmission and telepoint service, without prior notification. We believe this provides cellular licensees flexibility to offer additional services as they partially convert their existing systems from analog to digital technology. With regard to repealing the analog service requirement of OST Bulletin No. 53, however, we believe the record is incomplete and therefore at this time decline to repeal the requirement.

b. Local Exchange Carriers

112. In the Notice, we stated that PCS is likely to be both a complement and potentially a competitor to local exchange carriers. We expressed our concern that the eligibility of LECs to hold PCS licenses within their service areas could provide an incentive for LECs to discriminate against PCS competitors requesting interconnection, and could lead to cross-subsidizing PCS operations from expenditures ostensibly made to serve rate-regulated wireline customers. We stated our belief that discrimination and cross-subsidization could be minimized by regulatory safeguards. We noted that most large LECs own or are affiliated with a cellular telephone system, but that separate subsidiary regulatory requirements for Bell operating companies (BOCs) prevent ownership integration to guard against cross-subsidization, discriminatory pricing, and other anticompetitive conduct. Additionally, we noted that there are economies of scope between PCS and the LEC wireline network that could not be realized if LECs were prohibited from providing PCS within their wireline service area.

113. We noted that LECs may naturally desire to develop their networks using wireless tails or wireless loops wherever they are more economical than wireline connections. We stated

that the LEC's existing infrastructure could easily be used for backhaul functions for wireless tails, and because of existing infrastructure LECs may be able to achieve competitive unit costs for certain types of PCS while using less spectrum. Additionally, we believed that permitting LECs to provide PCS service would encourage them to develop their wireline architectures to better accommodate all PCS services.

114. We concluded that there is a strong case for permitting LECs to provide PCS service. However, the separate subsidiary requirements imposed upon the BOCs preclude approximately 80 percent of the LEC industry from realizing any economies of scope between their wireline and wireless telephone services.[95] Therefore, we requested comment on whether to allow LECs to hold PCS licenses, except where barred by their cellular holdings. We also requested comment on eliminating the BOC separate subsidiary requirement for cellular telephone service.

115. We requested comment on the option of allowing LECs to acquire some 2 GHz spectrum for PCS within their service area, but less than the amount proposed for other licensees, while permitting them to hold regular 2 GHz PCS licenses outside their service area. We tentatively concluded that 10 MHz may be sufficient for the initial deployment of a PCS system integrated with a wireline carrier. We requested comment on whether a greater amount of spectrum would be necessary or whether a lesser amount would be sufficient. We also requested comment on whether this 10 MHz block should be an additional allocation from the emerging technologies band, whether PCS spectrum blocks should be divided to allow LECs, or any other entity, to acquire a portion of spectrum, or finally, whether to allow LECs to lease or purchase up to 10 MHz from other PCS licensees.[96]

116. We stated in the Notice that this 10 MHz block would be open to any entity and would not be set aside for use only by LECs. However, we requested comment on whether LECs with a cellular license should be eligible for this 10 MHz PCS spectrum, even if cellular licensees are not otherwise allowed to acquire PCS spectrum in their service areas.

117. The majority of the parties favor LEC eligibility in some form. However, they disagree on specific issues regarding such eligibility. Specifically, the parties address these

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[95] See Section 22.901.

[96] Commencement of service by LECs under any of these alternatives would be contingent on the LEC implementing an acceptable plan for non-structural safeguards against discrimination and cross-subsidization.

issues: 1) regulatory safeguards to prevent non-competitive behavior; 2) whether LECs and LECs with cellular interests should be permitted to participate in PCS and under what circumstances; and, 3) whether there should be a separate spectrum set aside for LECs or any other party. The views of parties with regard to these issues follow.

118. GTE, CTIA, McCaw, and others believe that LECs should be allowed a full opportunity to participate in PCS. PacTel believes that LEC participation will produce a broader access to and acceptance of PCS. Additionally, a number of parties argue that LECs constitute one of the more qualified and experienced parties ready to provide new PCS services. GTE claims that barring LECs from PCS could lead to large numbers of LEC customers migrating to PCS providers, thus damaging the existing wireline telecommunications infrastructure. GTE claims that 60 percent of the participants in its PCS trials have elected to replace their wireline telephones with PCS handsets. Further, GTE believes that if LECs are unable to provide PCS to their customers, many customers will leave and the remaining customers will be forced to absorb non-traffic sensitive costs by paying higher rates for basic service.

119. U S West argues that it would be unreasonable to bar telephone companies from PCS licenses because of their cellular holdings, as these holdings are organizationally and physically separated from telephone company operations. Additionally, U S West states that it has no cellular ownership in 86 MSA/RSA markets in its 14 state region, yet it has some cellular presence in at least a portion of all the Major Trading Areas in that region. It states that, thus, if telephone companies were rendered ineligible because of even partial cellular interests, it would be excluded from providing PCS.

120. The Chief Counsel of Advocacy of the U.S. Small Business Administration (SBA) states that it does not oppose LECs providing PCS if there are five licensees per service area. However, SBA contends that if there are only three licensees, restrictions should be imposed on the entry of LECs except for those areas that otherwise would not obtain PCS unless provided by an existing LEC. SBA argues that LECs may be the only party interested in providing the infrastructure needed for PCS in rural areas, and therefore prohibiting LECs from providing PCS may reduce rural areas to second-class status in wireless communications. The California PUC comments that we should only permit LECs to be licensed for PCS if they have not acquired any interest in a cellular entity and are barred from acquiring any interest in any other PCS license in the same geographic area. The California PUC further argues that state regulatory agencies should be free to fashion regulatory safeguards to ensure that providers of PCS may fully and fairly compete with LEC providers of PCS within the state, and to determine the appropriate

regulatory classification governing a local exchange carrier's intrastate provision of PCS.

121. Associated PCN, Freeman Engineering (Freeman) and others believe that LECs should be eligible for PCS licenses, but only if appropriate safeguards are applied to control the anticompetitive potential of common ownership of the LEC and a PCS system. Most of these parties also believe that LECs should be required to provide equal access and interconnection for all PCS operations. Associated PCN and others argue that LEC ownership of PCS systems should be subject to separate subsidiary and joint cost accounting requirements. Freeman Engineering submits that LECs operating a PCS service within their landline service area should be required to provide a reasonable and cost-based interconnection for PCS services. MCI contends that equal access and interconnection to LEC facilities is necessary to maintain the integrity of a complete nationwide telecommunications system. MCI proposes that rates for access and interconnection should be based on traffic sent to that interconnect, minus traffic coming from it at the same rates.

122. NTIA suggests that we provide guidance to LECs in developing nonstructural safeguards that address nondiscriminatory interconnection and installation practices, network disclosure, customer information, and cross-subsidization issues. NTIA also suggests that we consider replacing the existing structural separation of BOCs and their cellular operations with nonstructural safeguards to provide greater flexibility in their provision of PCS. GTE and others believe that our non-discrimination rules have been demonstrated to be adequate. Additionally, GTE claims that it is too early to specify any particular type of regulations for interconnection.

123. Comcast, Associated PCN and others oppose LEC eligibility for PCS licenses in areas where LECs also operate cellular services. For example, Comcast claims that LECs have a clear vested interest in maintaining control of a local exchange and have engaged in abusive marketing practices, predatory pricing and cross-subsidization in the past. Comcast claims that LECs have not provided fair interconnection to other radio common carriers despite the Commission's policy requiring them to do so. Comcast proposes that LECs not be allowed to provide PCS service in their local exchange area until competitive PCS local loop services are available to 50 percent of the residences in the relevant licensing area and at least 15 percent subscribe to PCS services or any other wireline alternate access service. As an alternative to permitting LECs that are also cellular operators to receive PCS licenses, APC proposes that we allow LECs to be eligible for PCS licenses only if they own less than 20 percent of a cellular system serving the same area where they would provide PCS service.